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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/610,197	07/01/2000	John B. Ferber	2580-001	6838

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EXAMINER	
LAFORGIA, CHRISTIAN A	

ART UNIT	PAPER NUMBER
2131	

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/610,197	FERBER ET AL.	
	Examiner	Art Unit	
	Christian La Forgia	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *1 and 6* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-5 and 7-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30 July 2004 has been entered.

2. Claims 1-20 have been presented for examination.

3. Claims 1 and 6 have been cancelled as per Applicant's request.

Response to Arguments

4. Applicant's arguments with respect to claims 2-5 and 7-20 have been considered but are moot in view of the new ground(s) of rejection.

5. See further rejections that follow.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 2-8, 12, 13, and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,009,410 to LeMole et al., hereinafter LeMole, in view of U.S. Patent No. 6,560,578 to Eldering, hereinafter Eldring, and in further view of U.S. Patent No. 6,591,248 to Nakamura et al., hereinafter Nakamura.

8. As per claim 2, LeMole teaches a method for optimizing selection of advertisements for transmission to a customer, comprising:

creating at least one customer profile for a possible recipient of advertisement data, the customer profile reflecting the recipient's interest in predetermined characteristics of the advertisement data (Figures 2, 3 [block 301], 4 [block 401]; column 1, line 56 to column 2, line 17; column 4, lines 36-58);

creating an ad-attribute profile for each of the advertisements, the ad-attribute profile comprising a measure of uncertainty regarding the recipient's interest in each of the advertisements (Figures 2, 3 [blocks 306, 307, 308, 309], 4 [blocks 406, 407, 409]; column 2, lines 17-46; column 4, lines 36-58; column 6, line 49 to column 7, line 5; column 7, lines 19-35).

9. LeMole does not teach computing a value that the recipient will select each of the advertisements; and,

selecting the advertisement corresponding to the highest value.

10. Eldering teaches computing a value that the recipient will select each of the advertisements (Figure 2d [block 241], 5 [blocks 500, 514, 519, 530, 548, 556, 562], 8b [blocks 910, 920], 10 [block 1500]; column 2, line 62 to column 3, line 3; column 3, lines 29-38; column 8, lines 21-31); and,

selecting the advertisement corresponding to the highest value (column 3, lines 42-49; column 4, lines 1-15; column 8, lines 32-53; column 8, line 54 to column 9, line 3; column 10, lines 46-62). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the heuristic evaluation of Eldering with the system of LeMole. One would be motivated to include this feature in the system of LeMole because it would provide more accurate advertisements to targeted demographic areas. LeMole teaches towards this in his example at the bottom of column 4, where taking a demographic analysis of a

registered user and providing a targeted advertisement in regards to a vacation. Such analysis is beneficial due to the fact that a married couple with two children has different interests than a single person without any children.

11. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the measure of uncertainty be inversely proportional to a number of times said advertisement had been served (Nakamura: column 2, line 66 to column 3, line 34), since Nakamura states at column 2, lines 6-10 that such a modification would optimally solve the tradeoff of the selection of various advertisements for improving the estimation accuracy of the click rate and the selection of advertisements with high click rate.

12. Regarding claim 3, LeMole does not teach the step of serving the highest value advertisement to the recipient.

13. Eldering teaches the step of serving the highest value advertisement to the recipient (Figures 2a, 2b, 2c, 2d [block 239], 3a, 3b, 8a [block 810], and 8b [blocks 900, 910]; column 11, line 50 to column 12, line 14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include serving the advertisement with highest value to the recipient into the system of LeMole. One would be motivated to add such a feature to this system because by calculating the highest value of an appropriate advertisement and delivering that to an end user provides a better-predicted response from said user. For instance, a family of four would be more interested in vacationing in Disney World than say, a singles cruise in the Caribbean.

14. Regarding claim 4, LeMole does not teach wherein the ad-attribute profile further comprises a measure of a degree of content of the predetermined characteristics in the advertisements.

15. Eldering teaches wherein the ad-attribute profile further comprises a measure of a degree of content of the predetermined characteristics in the advertisements (Figures 2a, 2b, 2c, 2d [block 239], 3a, 3b, 8a [block 810], and 8b [blocks 900, 910]; column 9, lines 25-37; column 11, line 50 to column 12, line 12). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a measure of a degree of content. One would be motivated to provide a measure of a degree of content because it would give a demographic background of a particular item that would aid in supplying other advertisements to certain demographic backgrounds.

16. Regarding claim 5, LeMole teaches wherein the at least one customer profile comprises one attribute for each of the predetermined characteristics (Figures 2, 3 [blocks 301, 302], 4 [blocks 401, 402]; column 4, lines 36-58).

17. With regards to claim 7, LeMole does not teach wherein the ad-attribute profile comprises one attribute for each of the predetermined characteristics.

18. Eldering teaches wherein the ad-attribute profile comprises one attribute for each of the predetermined characteristics (Figures 2a, 2b, 2c, 2d [block 239], 3a, 3b, 7, 10; column 7, lines 22-54; column 8, lines 32-54). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include an ad-attribute profile in the system of LeMole. One

would be motivated to include this feature in the system of LeMole because it would provide more accurate advertisements to targeted demographic areas. LeMole teaches towards this in Figures 3 and 4, blocks 308, 309 and blocks 408, 409, respectively. One would also be motivated to provide this feature because it serves as a cross-reference point in sending advertisements to certain demographic groups.

19. Concerning claim 8, LeMole does not teach wherein the computing step further comprises the following steps for each advertisement:

(a) multiplying an attribute of the customer profile by a corresponding attribute of the ad-attribute profile to yield a product;

(b) accumulating the product; and

(c) repeating steps (a) and (b) for every attribute of the customer profile.

20. Eldering teaches wherein the computing step further comprises the following steps for each advertisement:

(a) multiplying an attribute of the customer profile by a corresponding attribute of the ad-attribute profile to yield a product (column 11, line 50 to column 12, line 2);

(b) accumulating the product (column 11, line 50 to column 12, line 2); and

(c) repeating steps (a) and (b) for every attribute of the customer profile (column 11, line 50 to column 12, line 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include an ad-attribute profile in the system of LeMole. One would be motivated to include this feature in the system of LeMole because it would provide more accurate advertisements to targeted demographic areas. LeMole teaches towards this in

Figures 3 and 4, blocks 308, 309 and blocks 408, 409, respectively. One would also be motivated to provide this feature because it serves as a cross-reference point in sending advertisements to certain demographic groups.

21. Regarding claim 12, LeMole does not teach wherein the computed value equals a square root of the number of times the advertisement has been served.

22. Eldering teaches wherein the computed value equals a square root of the number of times the advertisement has been served (Figure 2d [block 241], 8b [block 920]; column 11, lines 43-49; column 12, lines 58-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the effectiveness analysis of Eldering with the system of LeMole. One would be motivated to perform such an analysis in order to predict the effectiveness of the advertisement, such as if the ad is meeting, exceeding or falling short of the predicted effectiveness. LeMole teaches towards this Figures 3 and 4, blocks 308, 309 and 408, 409, respectively.

23. Regarding claim 13, LeMole teaches wherein the computing step further comprises computing a value, the value based on a predicted number of visitors to a predetermined number of Web sites (Figures 3 [block 302], 4 [block 402]; column 5, line 22 to column 6, line 19). LeMole teaches that the advertisement selection is based upon the types of web pages users visit, thereby choosing an advertisement with the highest probability of being of interest to the user based upon the context of the web sites that said user visits.

24. As per claim 16, LeMole teaches a method for optimizing selection of advertisements for customers, comprising:

creating a customer profile for a customer, the customer profile including customer attributes (Figures 2, 3 [block 301], 4 [block 401]; column 1, line 56 to column 2, line 17; column 4, lines 36-58);

creating an advertisement profile for each of a plurality of advertisements, each advertisement profile including an expected revenue based on potential placement of the corresponding advertisement (Figures 2, 3 [blocks 306, 307, 308, 309], 4 [blocks 406, 407, 409]; column 2, lines 17-46; column 4, lines 36-58; column 6, line 49 to column 7, line 5; column 7, lines 19-35)

25. LeMole does not teach:

for each advertisement, using the customer profile to determine an estimated probability that the customer will respond to the advertisement;

selecting which of the plurality of advertisements to present to the customer based on the estimated value, which includes the probability of the customer taking a specified action, the expected revenue associated with such event, and any additional learning gained.

26. Eldering teaches:

for each advertisement, using the customer profile to determine an estimated probability that the customer will respond to the advertisement (Figures 3a, 3b, 7, 8b [blocks 910, 920]; column 8, lines 32-53; column 10, lines 46-53);

selecting which of the plurality of advertisements to present to the customer based on the estimated value, which includes the probability of the customer taking a specified action, the

expected revenue associated with such action, the measure of uncertainty, and any additional learning gained (Figures 8a [blocks 820, 830, 840, 870], 8b [blocks 920, 930, 940]; column 10, lines 46-53; column 13, lines 25-54). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the heuristic evaluation of Eldering with the system of LeMole. One would be motivated to include this feature in the system of LeMole because it would provide more accurate advertisements to targeted demographic areas. LeMole teaches towards this in his example at the bottom of column 4, where taking a demographic analysis of a registered user and providing a targeted advertisement in regards to a vacation. Such analysis is beneficial due to the fact that a married couple with two children has different interests than a single person without any children.

27. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the measure of uncertainty be inversely proportional to a number of times said advertisement had been served (Nakamura: column 2, line 66 to column 3, line 34), since Nakamura states at column 2, lines 6-10 that such a modification would optimally solve the tradeoff of the selection of various advertisements for improving the estimation accuracy of the click rate and the selection of advertisements with high click rate.

28. Regarding claim 17, Eldering teaches wherein the selecting further includes calculating for each advertisement a projected value based on the estimated probability and the expected revenue (Figure 9; column 13, line 55 to column 14, line 8). Neither LeMole nor Eldering disclose including the expected revenue generated from the advertisement into the cost of the advertisement and, selecting the advertisement with the highest projected value. It would have

been obvious to one of ordinary skill in the art at the time the invention was made to include the expected revenue generated from the advertisement into the cost of the advertisement and, selecting the advertisement with the highest projected value, since it has been held in both Eldering and LeMole to chose the advertisement that would have the highest degree of success of appealing to the consumer.

29. Regarding claim 18, LeMole teaches presenting the selected advertisement to the customer (column 4, line 58 to column 5, line 23).

30. LeMole does not teach collecting data regarding the customer's response to the advertisement.

31. Eldering teaches collecting data regarding the customer's response to the advertisement (Figure 8a [block 830, 840]; column 13, lines 25-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of LeMole and Eldering and Nakamura, since it has been held in both patents that they are always recording of consumers' reaction to advertisements, web pages, and surveys, it would have only required routine skill in the art to also record a consumer's reaction to the displayed advertisement.

32. With regards to claim 19, Eldering teaches updating the customer profile based on the collected data (Figure 8a [block 830]; column 13, lines 25-43).

33. Regarding claim 20, LeMole and Eldering and Nakamura both teach wherein the customer attributes include long-term attributes and short-term attributes. Wherein long-term attributes are drawn to examples such as marital status and number or children, and short-term attributes are drawn to examples such as income and vacation interests.

34. Claims 9, 10, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over LeMole in view of Eldering, and further in view of Nakamura and United States Patent No. 6,317,761 to Landsman et al., hereinafter Landsman.

35. Concerning claim 9, LeMole and Eldering and Nakamura do not teach wherein the computing step further comprises the step of computing a value based on a predicted sequence of Web sites being accessed.

36. Landsman teaches wherein the computing step further comprises the step of computing a value based on a predicted sequence of Web sites being accessed (Figures 1b [blocks 15], 5 [block 545], 6 [block 640], 8 [blocks 820, 825], 9a [blocks 920, 925], 13 [block 545], 14; column 34, line 57 to column 35, line 20; column 35, line 39 to column 36, line 8; column 37, lines 17-52). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate an ad tracker similar to that of Landsman in the combined system of LeMole and Eldering and Nakamura. One would be motivated to track the predicted sequence of advertisements to prevent the same advertisement from repeating itself several times in a short span of time. Likewise, one would also be motivated to provide such tracking functions so that competitors advertisements would not play after each other. For instance, this function would

provide that a Coca-Cola advertisement would not air immediately before or after a Pepsi advertisement.

37. Concerning claim 10, LeMole and Eldering and Nakamura do not teach wherein a value for an advertisement is lowered if a particular Web site is predicted to be shown in the future.

38. Landsman teaches wherein a value for an advertisement is lowered if a particular Web site is predicted to be shown in the future (Figures 1b [blocks 15], 5 [block 545], 6 [block 640], 8 [blocks 820, 825], 9a [blocks 920, 925], 13 [block 545], 14; column 34, line 57 to column 35, line 20; column 35, line 39 to column 36, line 8; column 37, lines 17-52). It would have been obvious to one of ordinary skill in the art at the time the invention was made to lower the value of an ad that is to be shown in the future using the ad tracker of Landsman in the combined system of LeMole and Eldering and Nakamura. One would be motivated to lower the value of an ad to prevent the same advertisement from repeating itself several times in a short span of time. This would aid in preventing every other ad from being for the same or similar product.

39. Regarding claim 14, LeMole and Eldering and Nakamura do not teach wherein the selecting step comprises:

selecting a predetermined number of advertisements corresponding to a highest value; and,

storing an identifier for each advertisement in an ad queue.

40. Landsman teaches wherein the selecting step comprises:

selecting a predetermined number of advertisements corresponding to a highest value (Figures 1b [blocks 15], 5 [block 545], 6 [block 640], 8 [blocks 820, 825], 9a [blocks 920, 925], 13 [block 545], 14; column 34, line 57 to column 35, line 20; column 35, line 39 to column 36, line 8; column 37, lines 17-52); and,

storing an identifier for each advertisement in an ad queue (Figures 5 [blocks 25, 520], 6b [block 645], 7 [block 740], 15 [blocks 645, 1550]; column 35, line 50 to column 36, line 49; column 37, lines 17-51). It would have been obvious to one of ordinary skill in the art at the time the invention was made to serve up the advertisements corresponding to the highest value and store only an identifier in the ad queue. One would be motivated to serve up the advertisements with the highest values because they have the highest probability of being acknowledged, thereby creating sales for the various products that are being advertised. One would be motivated to use an identifier because it would save space in memory, in addition to being a quick and easy download without hindering any other downloads or web browsing capabilities.

41. With regards to claim 15, LeMole and Eldering and Nakamura do not teach wherein an advertisement is served to a user from the ad queue.

42. Landsman teaches wherein an advertisement is served to a user from the ad queue (Figures 1b [blocks 15], 5 [block 545], 6 [block 640], 8 [blocks 820, 825], 9a [blocks 920, 925], 13 [block 545], 14; column 35, line 39 to column 36, line 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to serve up the advertisements from an ad queue. One would be motivated to serve up the advertisements from an ad queue because

it would save time, preventing the ad server from searching for an appropriate advertisement to display.

43. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over LeMole in view of Eldering and Nakamura as applied to claim 2 above, and further in view of United States Patent No. 6,006,197 to d'Eon et al., hereinafter d'Eon.

44. Regarding claim 11, LeMole and Eldering and Nakamura to not teach wherein the computing step further comprises:

adding a revenue amount associated with each of the advertisements to the value; and

subtracting a cost associated with each of the advertisements from the value.

55. d'Eon teaches wherein the computing step further comprises:

adding a revenue amount associated with each of the advertisements to the value (column 3, lines 6-17); and

subtracting a cost associated with each of the advertisements from the value (column 3, lines 6-17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the analysis of d'Eon with the combined system of LeMole and Eldering and Nakamura and Nakamura. One would be motivated to add such a feature to the system because it would provide an accurate description as to the effectiveness of the advertisement.

Conclusion

56. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian La Forgia whose telephone number is (703) 305-7704. The examiner can normally be reached on Monday thru Thursday 7-5.

57. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (703) 305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

58. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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